

Steven Schultz
James G. Cummings Trust
PO Box 1138
Fort Bragg CA 95437

17 April 2003

Project No. P219 TO8

Letter Report
Groundwater Monitoring Conducted 23 February 2003
501 North Main Street
Fort Bragg CA
Case No. 1TMC387

Dear Mr. Schultz:

This letter report documents groundwater monitoring conducted 23 February 2003. Water levels were measured in all wells and samples were collected and analyzed for two wells (MW2 and MW4). The results of our work are summarized in the following:

- Table 1 provides an environmental chronology.
- Table 2 summarizes groundwater level and gradient data.
- Table 3 summarizes groundwater purging and sampling information. Purge water generated during the work was containerized in labeled drums and stored onsite.
- Table 4 summarizes groundwater analytical results from monitoring wells.
- Figure 1 provides a location map.
- Figure 2 shows well locations.
- Figure 3 shows groundwater level and gradient data.
- Attachment 1 contains the groundwater sampling forms.
- Attachment 2 contains the laboratory report and chain-of-custody form.

Please contact us with any questions or comments.

Sincerely,

STREAMBORN

Douglas W. Lovell, PE
Geoenvironmental Engineer

cc: Dan Warner / North Coast RWQCB, Santa Rosa CA
Mike Mihos / Mike's Classic Car Care, Fort Bragg CA

Table 1 (Page 1 of 2)
Environmental Chronology
501 North Main Street
Fort Bragg CA

Date	Performed By	Description
Circa 1940's	Unknown	<ul style="list-style-type: none"> Thirteen underground tanks were installed at the property: eight 55-gallon tanks, 15,000-gallon tank, 400-gallon tank, 325-gallon tank, 28-gallon tank, and 24-gallon tank. Sump installed inside the garage at the property. Hydraulic lift installed inside the garage at the property.
Circa 1940's to 1970's	Anderson	<ul style="list-style-type: none"> The property was operated as a service station called “Anderson’s Service Station”. The eight 55-gallon underground tanks were used to store virgin motor oil. The 15,000-gallon underground tank and 400-gallon underground tank were used to store leaded gasoline. For some period of time (dates unknown), the gasoline was supplied by Chevron. The 325-gallon underground tank was used to store waste oil. The 28-gallon underground tank and 24-gallon underground tank were used to store unknown fluids. The fact that these tanks are small in volume leads us to believe they stored fluids with a correspondingly small demand, such as kerosene and/or white gas (unleaded gasoline).
1970's	Unknown	<ul style="list-style-type: none"> The service station was closed. Use of the tanks, hydraulic lift, and sump were discontinued.
23 April 1998	Foss Environmental Services	<ul style="list-style-type: none"> The 325-gallon waste oil tank, 15,000-gallon gasoline tank, 325-gallon gasoline tank, one of the eight 55-gallon virgin motor oil tanks, and sump were triple-rinsed. Approximately 3,200-gallons of rinseate were transported to the Seaport Environmental facility (Redwood City CA) for disposal. The 15,000-gallon underground gasoline tank was ventilated with a fan (this continued to 15 May 1998).
1 May 1998	Streamborn	<ul style="list-style-type: none"> Soil samples were collected beneath each end of the 15,000-gallon underground gasoline tank via angled borings. The soil samples were analyzed for TPH-gasoline, BTEX, MTBE, and total lead.
19 - 22 May 1998	Streamborn and Foss Environmental Services	<ul style="list-style-type: none"> The 15,000-gallon underground gasoline tank was backfilled with sand-cement slurry. The remaining seven 55-gallon virgin motor oil tanks were triple-rinsed. Approximately 250-gallons of rinseate were transported to the Seaport Environmental facility (Redwood City CA) for disposal. The 400-gallon gasoline tank, 325-gallon waste oil tank, and eight 55-gallon virgin motor oil tanks were excavated and removed. The piping associated with these tanks and the 15,000-gallon tank was excavated and removed. The sump was removed. The hydraulic lift, aboveground hydraulic fluid tank, and associated piping were removed. The tanks, piping, and hydraulic lift were transported to Schnitzer Steel (Oakland CA) for recycling as scrap steel. Containerized tank solids and sump debris were transported to Demenno Kerdoon (Los Angeles CA) for disposal. Soil samples were collected from beneath the 400-gallon gasoline tank, 325-gallon waste oil tank, eight 55-gallon virgin motor oil tanks, sump, and hydraulic lift. Soil samples were collected from beneath the piping associated with the underground tanks. Soil samples were also collected from the stockpiles of excavated soil. As appropriate, soil samples were analyzed for TPH-motor oil, TPH-diesel, TPH-gasoline, BTEX, fuel oxygenates and other VOCs, semivolatile organic compounds, total lead, total chromium, total cadmium, total nickel, and total zinc. The common excavation for the eight 55-gallon virgin motor oil tanks was backfilled with approximately 8 cubic yards of imported soil. The excavation for the 400-gallon gasoline tank was backfilled with approximately 8 cubic yards of sand-cement slurry. While excavating to remove the aforementioned tanks and piping, two sets of pipes were discovered immediately south of the 15,000-gallon gasoline tank. These pipes did not appear to be associated with any of the previously-identified tanks.
8 - 9 October 1998	Streamborn	<ul style="list-style-type: none"> Seven Geoprobe borings were completed to investigate petroleum hydrocarbon releases. Soil and groundwater samples were collected in the borings. Selected soil samples were analyzed for TPH-motor oil, TPH-diesel, TPH-gasoline, BTEX, fuel oxygenates, volatile organic compounds, and semivolatile organic compounds, as appropriate. Groundwater samples were analyzed for TPH-motor oil, TPH-diesel, TPH-gasoline, BTEX, fuel oxygenates, volatile organic compounds, semivolatile organic compounds, dissolved lead, dissolved chromium, dissolved cadmium, dissolved nickel, and dissolved zinc, as appropriate.
22 - 23 October 1998	Streamborn and Foss Environmental Services	<ul style="list-style-type: none"> The previously-unidentified sets of pipes were excavated, revealing two additional underground tanks that likely stored kerosene or unleaded gasoline (white gas). The 28-gallon tank, 24-gallon tank, and two sets of piping were removed. The tanks and associated piping were transported to Schnitzer Steel (Oakland CA) for recycling as scrap steel. Soil samples were collected from beneath the 28-gallon tank, from beneath 24-gallon tank, and from the stockpiles of excavated soil. The soil samples were analyzed for TPH-motor oil, TPH-kerosene, TPH-diesel, TPH-gasoline, BTEX, and total lead. The excavations for the 28-gallon tank and 24-gallon tank were backfilled with excavated soil. The excavation for the 325-gallon waste oil tank was backfilled with excavated soil and 2 cubic yards of imported soil. Concrete debris (from removal of the pump island and pavement) was transported to the Baxman Gravel Company (Fort Bragg CA) for crushing and recycling as aggregate. Approximately 16 cubic yards of soil excavated during removal of the 400-gallon gasoline tank and eight virgin motor oil tanks was transported to Keller Canyon Landfill (Pittsburg CA) for disposal.
29 December 1998	Chico Drain Oil Service	<ul style="list-style-type: none"> The drummed water and rinseate, generated during removal of the 28- and 24-gallon tanks, was transported to Oil Re-refining (Portland OR) for disposal.
30 December 1998	Foss Environmental Services	<ul style="list-style-type: none"> The drummed soil, generated during removal of the 28- and 24-gallon tanks, was transported to Chemical Waste Management (Kettleman City CA) for disposal.
13 -14 September 2000	Streamborn	<ul style="list-style-type: none"> Five monitoring wells ranging in depth from 22 to 24 feet were installed (MW1 through MW5). Soil and groundwater samples were collected and analyzed for TPH-motor oil, TPH-diesel, TPH-gasoline, BTEX, fuel oxygenates, and volatile organic compounds. Water levels were measured in the monitoring wells.

13-14 December 2000	Streamborn	<ul style="list-style-type: none">• Water levels were measured in and groundwater samples were collected from monitoring wells MW1 through MW5. Samples were analyzed for TPH-motor oil, TPH-diesel, TPH-gasoline, BTEX, fuel oxygenates, and volatile organic compounds.• Level survey performed for the wells.
7 March 2001	Streamborn	<ul style="list-style-type: none">• Water levels were measured in and groundwater samples were collected from monitoring wells MW1 through MW5. Samples were analyzed for TPH-motor oil, TPH-diesel, TPH-gasoline, BTEX, fuel oxygenates, and volatile organic compounds.• Level survey was performed again and the original survey measurements were verified.

Table 1 (Page 2 of 2)
Environmental Chronology
501 North Main Street
Fort Bragg CA

Date	Performed By	Description
13 June 2001	Streamborn	<ul style="list-style-type: none">• Water levels were measured in and groundwater samples were collected from monitoring wells MW1 through MW5. Samples were analyzed for TPH-motor oil, TPH-diesel, TPH-gasoline, BTEX, fuel oxygenates, and volatile organic compounds.
9 January 2002	Streamborn	<ul style="list-style-type: none">• Water levels were measured in monitoring wells MW1 through MW5 and groundwater samples were collected from monitoring wells MW2, MW4, and MW5. Samples were analyzed for TPH-diesel, TPH-gasoline, BTEX, and fuel oxygenates.
23 February 2003	Streamborn	<ul style="list-style-type: none">• Water levels were measured in monitoring wells MW1 through MW5 and groundwater samples were collected from monitoring wells MW2 and MW4. Samples were analyzed for TPH-motor oil, TPH-kerosene, TPH-diesel, TPH-stoddard solvent, TPH-hydraulic oil, TPH-gasoline, BTEX, and fuel oxygenates.

General Note

(a) TPH = total petroleum hydrocarbons. BTEX = benzene, toluene, ethylbenzene, and xylenes. MTBE = methyl tertiary butyl ether.

Table 2
Groundwater Level and Gradient Information
501 North Main Street
Fort Bragg CA

Location	MW1		MW2		MW3		MW4		MW5		Groundwater Gradient	
Ground Surface	Elev = 999.33		Elev = 999.26		Elev = 999.07		Elev = 998.84		Elev = 998.23			
Measuring Point	TOC N Side, Elev = 998.97		TOC N Side, Elev = 998.83		TOC N Side, Elev = 998.76		TOC N Side, Elev = 998.55		TOC N Side, Elev = 997.87			
Intercepted Interval	<u>Depth</u>	<u>Elev</u>	<u>Depth</u>	<u>Elev</u>	<u>Depth</u>	<u>Elev</u>	<u>Depth</u>	<u>Elev</u>	<u>Depth</u>	<u>Elev</u>	Direction	Magnitude
	9 to 24	975.3 to 990.3	9 to 24	975.3 to 990.3	9 to 24	975.1 to 990.1	8 to 23	975.8 to 990.8	7 to 22	976.2 to 991.2		
14 September 2000	15.29	983.68	14.27	984.56	14.92	983.84	15.12	983.43	14.30	983.57		
13 December 2000	15.17	983.80	14.34	984.49	14.98	983.78	15.17	983.38	14.36	983.51	N 64°W	0.009
7 March 2001	11.75	987.22	11.40	987.43	11.48	987.28	11.49	987.06	10.78	987.09	N 73°W	0.004
13 June 2001	13.82	985.15	13.04	985.79	13.54	985.22	13.67	984.88	12.90	984.97	N 77°W	0.007
9 January 2002	10.05	988.92	9.87	988.96	9.80	988.96	9.71	988.84	9.04	988.83	N 72°W	0.002
23 February 2003	11.25	987.72	10.98	987.85	11.0	987.76	10.99	987.56	10.29	987.58	N 79°W	0.003
Total Depth (Last Measurement)	23.2		23.3		22.7		22.5		21.3			

General Notes

- (a) Measurements cited in units of feet. Elevation datum is site-specific (not Mean Sea Level).
- (b) Measurements by Streamborn (Berkeley CA).
- (c) Depth of intercepted interval measured relative to the ground surface, and corresponds to the sand pack interval.
- (d) TOC = top of PVC casing. N = north. Measuring points are the top of PVC casing, north side.
- (e) Depth to water and total depth measured relative to the top of PVC casing.
- (f) Elevations are based on 13 December 2000 survey performed by Streamborn. Elevations relative to site-specific datum (Bench Mark No. 1 = northeast corner of step on loading dock for the property directly south across Pine Street [North Coast Brewing]. Assumed elevation = 1,000.00 feet).

Table 3
Groundwater Purging and Sampling Information
501 North Main Street
Fort Bragg CA

Location	Sample Date	Sample Type	Dissolved Oxygen (mg/L)	pH	Specific Conductance (μS/cm)	Temperature (degrees C)	ORP (mV)	Turbidity and Color	Purge Method	Purge Duration (minutes)	Volume Purged (gallons)	Purged Dry ?	Standing Water Casing Volumes Removed
MW1	14 Sep 2000	Grab (bailer)	NM	7.0	NM	18.6	-230	Opaque, brown	Submersible pump	60	3	Yes	±3
	14 Dec 2000	Grab (bailer)	NM	8.0	870	15.1	-260	Opaque, brown	Submersible pump	25	12	Yes	±9
	7 Mar 2001	Grab (bailer)	2.1	7.4	470	15.6	-220	Cloudy, brown	Submersible pump	7	6	No	±3
	13 Jun 2001	Grab (bailer)	3.3	6.9	260	17.6	50	Translucent, brown	Submersible pump	9	5	Yes	±3
MW2	14 Sep 2000	Grab (bailer)	NM	6.6	NM	18.0	-220	Cloudy, Grey	Submersible pump	100	15	No	±10
	13 Dec 2000	Grab (bailer)	NM	7.2	870	18.1	-250	Cloudy, Grey	Submersible pump	7	10	No	±7
	7 Mar 2001	Grab (bailer)	1.7	7.4	700	15.4	-240	Cloudy, Grey	Submersible pump	8	6	No	±3
	13 Jun 2001	Grab (bailer)	1.5	7.1	560	16.7	-20	Clear, none	Submersible pump	6	5	No	±3
	9 Jan 2002	Grab (bailer)	2.0	7.1	510	16.4	-170	Clear, none	Submersible pump	10	7	No	±3
	23 Feb 2003	Grab (bailer)	1.9	7.6	660	16.4	-50	Translucent, brown	Submersible pump	10	6	No	±3
MW3	14 Sep 2000	Grab (bailer)	NM	7.0	NM	17.2	-180	Cloudy, brown	Submersible pump	17	15	No	±12
	13 Dec 2000	Grab (bailer)	NM	6.8	230	14.8	-180	Opaque, brown	Submersible pump	5	5	No	±5
	7 Mar 2001	Grab (bailer)	6.5	6.6	160	13.9	-170	Cloudy, brown	Submersible pump	6	6	No	±3
	13 Jun 2001	Grab (bailer)	7.4	6.5	170	15.6	80	Cloudy, brown	Submersible pump	17	10	No	±7
MW4	14 Sep 2000	Grab (bailer)	NM	6.8	NM	17.1	-240	Translucent, brown	Submersible pump	35	15	No	±12
	13 Dec 2000	Grab (bailer)	NM	7.2	510	15.1	-270	Clear, none	Submersible pump	7	5	No	±4
	7 Mar 2001	Grab (bailer)	2.2	7.0	570	14.0	-220	Clear, none	Submersible pump	7	6	No	±3
	13 Jun 2001	Grab (bailer)	1.7	6.7	710	19.5	-30	Clear, none	Submersible pump	6	5	No	±3
	9 Jan 2002	Grab (bailer)	1.9	7.0	520	16.2	-50	Clear, none	Submersible pump	10	6	No	±3
	23 Feb 2003	Grab (bailer)	1.1	7.0	510	16.3	-160	Clear, none	Submersible pump	10	6	No	±3
MW5	14 Sep 2000	Grab (bailer)	1.0	6.5	NM	16.4	-160	Turbid, brown	Submersible pump	15	15	No	±13
	13 Dec 2000	Grab (bailer)	NM	6.4	160	17.3	-170	Cloudy, brown	Submersible pump	10	10	No	±9
	7 Mar 2001	Grab (bailer)	6.2	6.5	180	14.6	-160	Cloudy, brown	Submersible pump	7	5	No	±3
	13 Jun 2001	Grab (bailer)	6.2	6.4	200	17.4	0	Cloudy, brown	Submersible pump	8	4	No	±3
	9 Jan 2002	Grab (bailer)	6.5	6.3	190	15.8	-60	Turbid, brown	Submersible pump	10	6	No	±3

General Notes

- (a) Purging and sampling performed by Streamborn (Berkeley CA).
- (b) ORP = oxidation/reduction potential.
- (c) NM = Not Measured.

Table 4 (Page 1 of 2)

Groundwater Analytical Results from Monitoring Wells

501 North Main Street

Fort Bragg CA

Location	Sample Date	Sample Type	TPH-Diesel (µg/L)	TPH-Motor Oil (µg/L)	TPH-Kerosene (µg/L)	TPH-Stoddard Solvent (µg/L)	TPH-Hydraulic Oil (µg/L)	TPH-Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Volatile Organic Compounds (EPA Method 8260) (µg/L)	Fuel Oxygenates (EPA Method 8260) (µg/L)
MW1	14 Sep 2000	Grab	93 ⁽¹⁾	<710	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	<0.5 to <50	<5 to <10
	14 Dec 2000	Grab	<50	<580	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	Chloroform = 1.3 Others <0.5 to <50	<5 to <10
	7 Mar 2001	Grab	<50	<500	NM	NM	NM	63	<0.5	<0.5	<0.5	<0.5	<0.5 to <50	<5 to <10
	13 Jun 2001	Grab	<50	<500	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	<0.5 to <50	<5 to <10
MW2	14 Sep 2000	Grab	1,400 ⁽¹⁾	<500	NM	NM	NM	2,000	<0.5	<0.5	18	33	<2.0 to <200	<5 to <10
	13 Dec 2000	Grab	210 ⁽¹⁾	<500	NM	NM	NM	800 ⁽¹⁾	2.0	<0.5	<0.5	<0.5	<2.5 to <250	<5 to <10
	7 Mar 2001	Grab	160 ⁽¹⁾	<500	NM	NM	NM	1,300 ⁽¹⁾	<2.5	<2.5	<2.5	<2.5	Isopropyl benzene = 0.81 Others <0.5 to <50	<5 to <10
	13 Jun 2001	Grab	240 ⁽¹⁾	<500	NM	NM	NM	660 ⁽¹⁾	<0.5	<0.5	<0.5	<0.5	<0.5 to <50	<5 to <10
	9 Jan 2002	Grab	160 ⁽¹⁾	NM	NM	NM	NM	820 ⁽¹⁾	<0.5	<0.5	<0.5	<0.5	NM	<25 to <50
	23 Feb 2003	Grab	170 ⁽¹⁾	<500	<50	<50	<500	1,300 ⁽¹⁾	<0.5	<0.5	<0.5	<1.0	NM	<0.5 to <25
MW3	14 Sep 2000	Grab	<50	<500	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	Carbon Disulfide = 3.0 Chloroform = 1.5 Others <0.5 to <50	<5 to <10
	13 Dec 2000	Grab	<50	<500	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	Chloroform = 0.88 Others <0.5 to <50	<5 to <10
	7 Mar 2001	Grab	<50	<500	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	Chloroform = 0.86 Others <0.5 to <50	<5 to <10
	13 Jun 2001	Grab	<50	<500	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	<0.5 to <50	<5 to <10
MW4	14 Sep 2000	Grab	540 ⁽¹⁾	<500	NM	NM	NM	1,700	<0.5	<0.5	<0.5	11	<2.0 to <200	<5 to <10
	13 Dec 2000	Grab	120 ⁽¹⁾	<500	NM	NM	NM	240	<0.5	2.0	1.2	4.1	<0.5 to <50	<5 to <10
	7 Mar 2001	Grab	51 ⁽¹⁾	<500	NM	NM	NM	210 ⁽¹⁾	<0.5	<0.5	<0.5	<0.5	<0.5 to <50	<5 to <10
	13 Jun 2001	Grab	50 ⁽¹⁾	<500	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	<0.5 to <50	<5 to <10
	9 Jan 2002	Grab	<50	NM	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	NM	<5 to <10
	23 Feb 2003	Grab	<50	<500	<50	<50	<500	<50	<0.5	<0.5	<0.5	<1.0	NM	<0.5 to <25

Table 4 (Page 2 of 2)
Groundwater Analytical Results from Monitoring Wells
501 North Main Street
Fort Bragg CA

Location	Sample Date	Sample Type	TPH-Diesel (µg/L)	TPH-Motor Oil (µg/L)	TPH-Kerosene (µg/L)	TPH-Stoddard Solvent (µg/L)	TPH-Hydraulic Oil (µg/L)	TPH-Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Volatile Organic Compounds (EPA Method 8260) (µg/L)	Fuel Oxygenates (EPA Method 8260) (µg/L)
MW5	14 Sep 2000	Grab	<50	<500	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	Chloroform = 1.3 Others <0.5 to <50	<5 to <10
	13 Dec 2000	Grab	<50	<500	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	Chloroform = 0.85 Others <0.5 to <50	<5 to <10
	7 Mar 2001	Grab	<50	<500	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	Chloroform = 1.4 Others <0.5 to <50	<5 to <10
	13 Jun 2001	Grab	<50	<500	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	<0.5 to <50	<5 to <10
	9 Jan 2002	Grab	<50	NM	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	NM	<5 to <10

General Notes

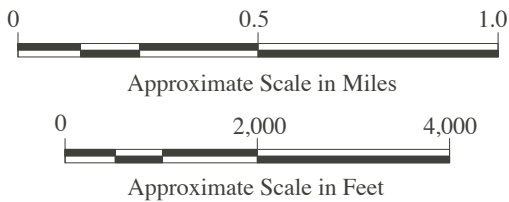
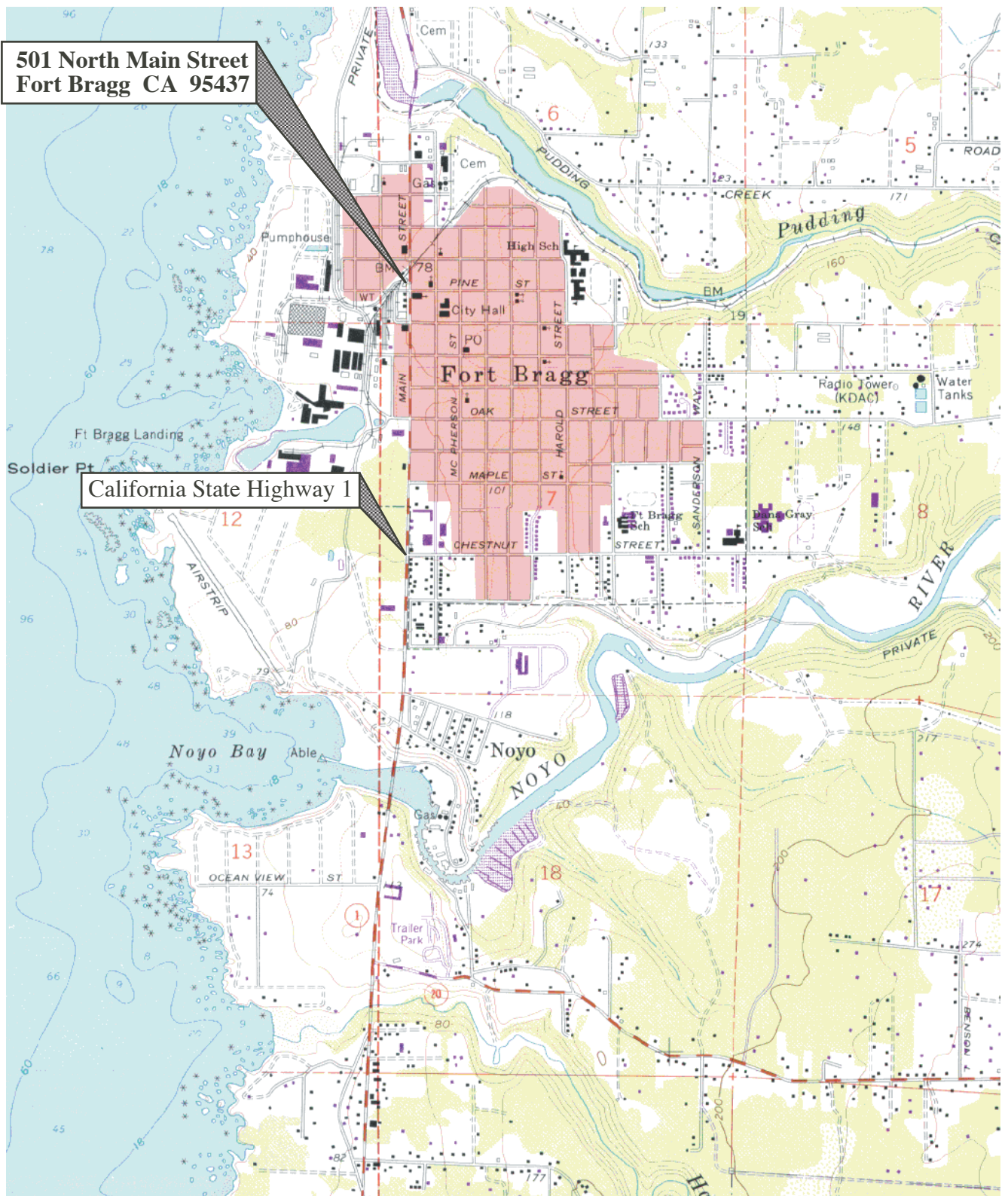
- (a) TPH = total petroleum hydrocarbons. NM = not measured.
- (b) Samples collected by Streamborn (Berkeley CA). Samples analyzed by Chromalab = STL Chromalab = STL San Francisco (Pleasanton CA).

Footnotes

- (1) Laboratory reported the result did not match the standard.

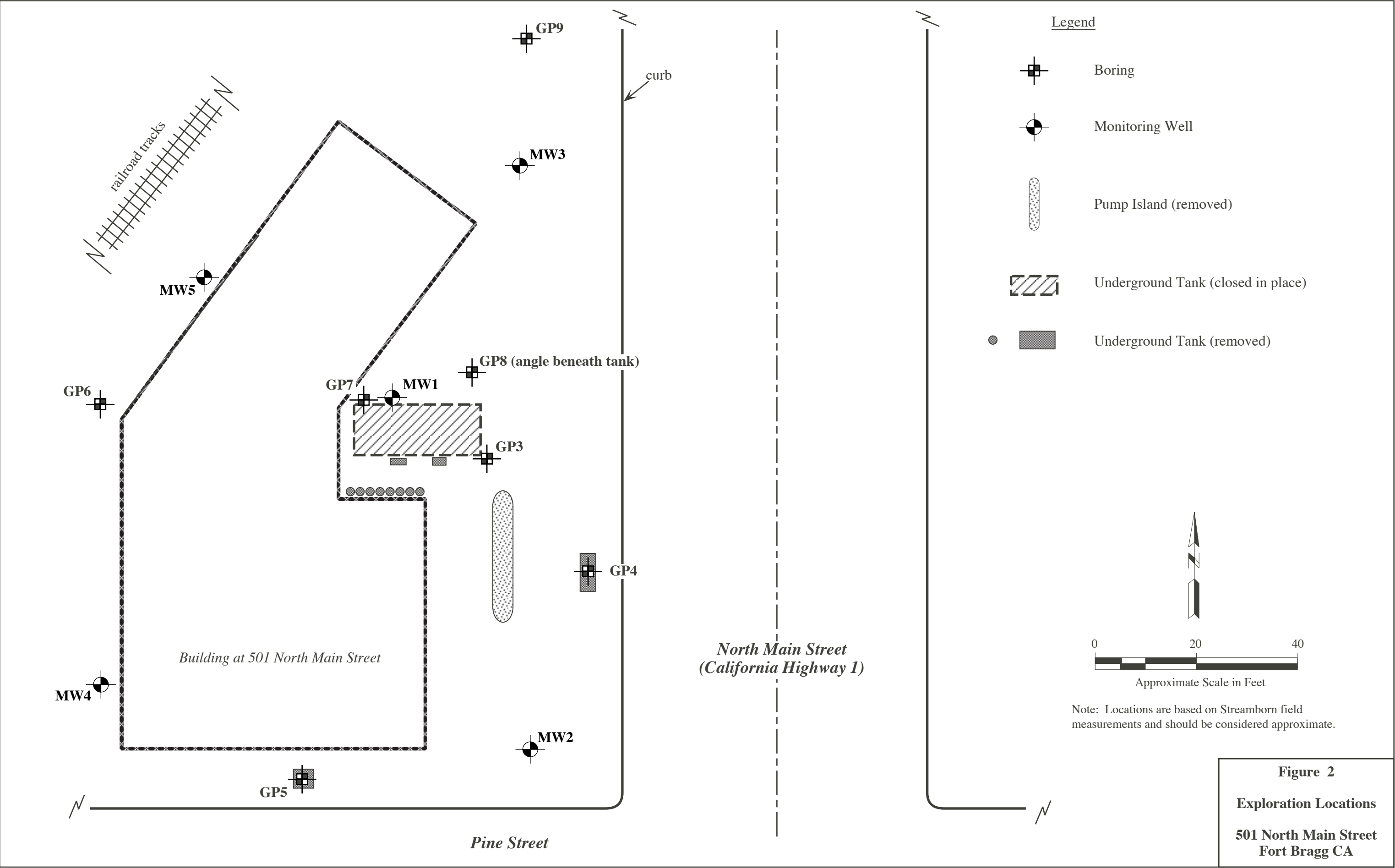
**501 North Main Street
Fort Bragg CA 95437**

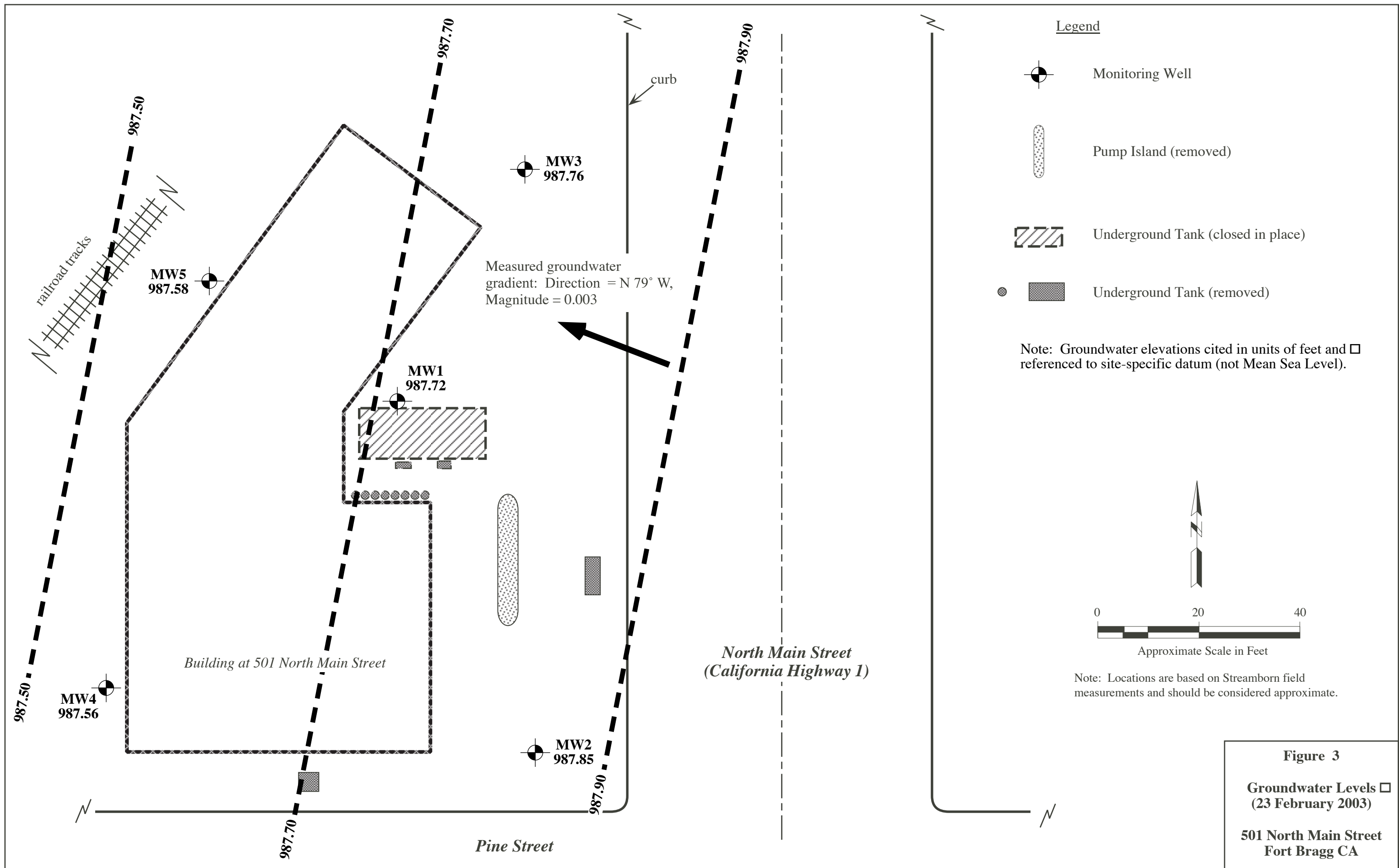
California State Highway 1



Basemap: U.S. Geological
Survey, 7.5 Minute
Quadrangle, Fort Bragg CA.
1960 (Photorevised 1978)

Figure 1
Location Map
501 North Main Street
Fort Bragg CA





ATTACHMENT 1

Groundwater Sampling Forms

ATTACHMENT 2

Laboratory Report and Chain-of-Custody
Form

Streamborn Consulting Services

March 03, 2003

900 Sante Fe Avenue
Albany, CA 94706

Attn.: Paul A. Fairbairn

Project#: P219 TO8

Project: 501 North Main

Site: Fort Bragg, CA

Dear Mr. Fairbairn,

Attached is our report for your samples received on 02/24/2003 16:29

This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 04/10/2003 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.

You can also contact me via email. My email address is: vvancil@stl-inc.com

Sincerely,

A handwritten signature in black ink, appearing to read 'V. Vancil', with a large, stylized loop at the end.

Vincent Vancil
Project Manager

Gas/BTEX Fuel Oxygenates by 8260B

Streamborn Consulting Services

Attn.: Paul A. Fairbairn

900 Sante Fe Avenue

Albany, CA 94706

Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P219 TO8

501 North Main

Received: 02/24/2003 16:29

Site: Fort Bragg, CA

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
501-MW2 (23 Feb 03)	02/23/2003 16:10	Water	1
501-MW4 (23 Feb 03)	02/23/2003 15:10	Water	2

Gas/BTEXFuel Oxygenates by 8260B

Streamborn Consulting Services

Attn.: Paul A. Fairbairn

900 Sante Fe Avenue

Albany, CA 94706

Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P219 TO8

501 North Main

Received: 02/24/2003 16:29

Site: Fort Bragg, CA

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	501-MW2 (23 Feb 03)	Lab ID:	2003-02-0461 - 1
Sampled:	02/23/2003 16:10	Extracted:	2/27/2003 13:55
Matrix:	Water	QC Batch#:	2003/02/27-01.27

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	1300	50	ug/L	1.00	02/27/2003 13:55	g
Benzene	ND	0.50	ug/L	1.00	02/27/2003 13:55	
Toluene	ND	0.50	ug/L	1.00	02/27/2003 13:55	
Ethylbenzene	ND	0.50	ug/L	1.00	02/27/2003 13:55	
Total xylenes	ND	1.0	ug/L	1.00	02/27/2003 13:55	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	1.00	02/27/2003 13:55	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	02/27/2003 13:55	
Di-isopropyl Ether (DIPE)	ND	1.0	ug/L	1.00	02/27/2003 13:55	
Ethyl tert-butyl ether (ETBE)	ND	0.50	ug/L	1.00	02/27/2003 13:55	
tert-Amyl methyl ether (TAME)	ND	0.50	ug/L	1.00	02/27/2003 13:55	
1,2-DCA	ND	0.50	ug/L	1.00	02/27/2003 13:55	
EDB	ND	0.50	ug/L	1.00	02/27/2003 13:55	
Ethanol	ND	25	ug/L	1.00	02/27/2003 13:55	
Surrogates(s)						
1,2-Dichloroethane-d4	101.0	76-114	%	1.00	02/27/2003 13:55	
Toluene-d8	103.1	88-110	%	1.00	02/27/2003 13:55	

Gas/BTEXFuel Oxygenates by 8260B

Streamborn Consulting Services

Attn.: Paul A. Fairbairn

900 Sante Fe Avenue

Albany, CA 94706

Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P219 TO8

501 North Main

Received: 02/24/2003 16:29

Site: Fort Bragg, CA

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	501-MW4 (23 Feb 03)	Lab ID:	2003-02-0461 - 2
Sampled:	02/23/2003 15:10	Extracted:	2/26/2003 18:14
Matrix:	Water	QC Batch#:	2003/02/26-01.27

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	02/26/2003 18:14	
Benzene	ND	0.50	ug/L	1.00	02/26/2003 18:14	
Toluene	ND	0.50	ug/L	1.00	02/26/2003 18:14	
Ethylbenzene	ND	0.50	ug/L	1.00	02/26/2003 18:14	
Total xylenes	ND	1.0	ug/L	1.00	02/26/2003 18:14	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	1.00	02/26/2003 18:14	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	02/26/2003 18:14	
Di-isopropyl Ether (DIPE)	ND	1.0	ug/L	1.00	02/26/2003 18:14	
Ethyl tert-butyl ether (ETBE)	ND	0.50	ug/L	1.00	02/26/2003 18:14	
tert-Amyl methyl ether (TAME)	ND	0.50	ug/L	1.00	02/26/2003 18:14	
1,2-DCA	ND	0.50	ug/L	1.00	02/26/2003 18:14	
EDB	ND	0.50	ug/L	1.00	02/26/2003 18:14	
Ethanol	ND	25	ug/L	1.00	02/26/2003 18:14	
Surrogates(s)						
1,2-Dichloroethane-d4	94.7	76-114	%	1.00	02/26/2003 18:14	
Toluene-d8	95.0	88-110	%	1.00	02/26/2003 18:14	

Gas/BTEXFuel Oxygenates by 8260B

Streamborn Consulting Services

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Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P219 TO8

501 North Main

Received: 02/24/2003 16:29

Site: Fort Bragg, CA

Batch QC Report

Prep(s): 5030B

Method Blank

MB: 2003/02/26-01.27-005

Test(s): 8260FAB

QC Batch # 2003/02/26-01.27

Date Extracted: 02/26/2003 11:31

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	02/26/2003 11:31	
Benzene	ND	0.5	ug/L	02/26/2003 11:31	
Toluene	ND	0.5	ug/L	02/26/2003 11:31	
Ethylbenzene	ND	0.5	ug/L	02/26/2003 11:31	
Total xylenes	ND	1.0	ug/L	02/26/2003 11:31	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	02/26/2003 11:31	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	02/26/2003 11:31	
Di-isopropyl Ether (DIPE)	ND	1.0	ug/L	02/26/2003 11:31	
Ethyl tert-butyl ether (ETBE)	ND	0.5	ug/L	02/26/2003 11:31	
tert-Amyl methyl ether (TAME)	ND	0.5	ug/L	02/26/2003 11:31	
1,2-DCA	ND	0.5	ug/L	02/26/2003 11:31	
EDB	ND	0.5	ug/L	02/26/2003 11:31	
Ethanol	ND	25	ug/L	02/26/2003 11:31	
Surrogates(s)					
1,2-Dichloroethane-d4	95.9	76-114	%	02/26/2003 11:31	
Toluene-d8	96.7	88-110	%	02/26/2003 11:31	

Gas/BTEXFuel Oxygenates by 8260B

Streamborn Consulting Services

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Project: P219 TO8

501 North Main

Received: 02/24/2003 16:29

Site: Fort Bragg, CA

Batch QC Report

Prep(s): 5030B

Method Blank

MB: 2003/02/27-01.27-012

Water

Test(s): 8260FAB

QC Batch # 2003/02/27-01.27

Date Extracted: 02/27/2003 12:20

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	02/27/2003 12:20	
Benzene	ND	0.5	ug/L	02/27/2003 12:20	
Toluene	ND	0.5	ug/L	02/27/2003 12:20	
Ethylbenzene	ND	0.5	ug/L	02/27/2003 12:20	
Total xylenes	ND	1.0	ug/L	02/27/2003 12:20	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	02/27/2003 12:20	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	02/27/2003 12:20	
Di-isopropyl Ether (DIPE)	ND	1.0	ug/L	02/27/2003 12:20	
Ethyl tert-butyl ether (ETBE)	ND	0.5	ug/L	02/27/2003 12:20	
tert-Amyl methyl ether (TAME)	ND	0.5	ug/L	02/27/2003 12:20	
1,2-DCA	ND	0.5	ug/L	02/27/2003 12:20	
EDB	ND	0.5	ug/L	02/27/2003 12:20	
Ethanol	ND	25	ug/L	02/27/2003 12:20	
Surrogates(s)					
1,2-Dichloroethane-d4	109.0	76-114	%	02/27/2003 12:20	
Toluene-d8	98.4	88-110	%	02/27/2003 12:20	

Gas/BTEXFuel Oxygenates by 8260B

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Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P219 TO8

501 North Main

Received: 02/24/2003 16:29

Site: Fort Bragg, CA

Batch QC Report

Prep(s): 5030B

Test(s): 8260FAB

Laboratory Control Spike

Water

QC Batch # 2003/02/26-01.27

LCS 2003/02/26-01.27-003

Extracted: 02/26/2003

Analyzed: 02/26/2003 10:39

LCSD 2003/02/26-01.27-004

Extracted: 02/26/2003

Analyzed: 02/26/2003 11:09

Compound	Conc. ug/L		Exp.Conc.	Recovery		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		Rec.	RPD	LCS	LCSD
Benzene	22.2	23.0	25.0	88.8	92.0	3.5	69-129	20		
Toluene	22.7	22.7	25.0	90.8	90.8	0.0	70-130	20		
Methyl tert-butyl ether (MTBE)	26.1	26.0	25.0	104.4	104.0	0.4	65-165	20		
Surrogates(s)										
1,2-Dichloroethane-d4	491	481	500	98.2	96.2		76-114			
Toluene-d8	474	457	500	94.8	91.4		88-110			

Severn Trent Laboratories, Inc.

STL San Francisco * 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 * www.stl-inc.com * CA DHS ELAP# 2496

02/28/2003 14:01

Gas/BTEXFuel Oxygenates by 8260B

Streamborn Consulting Services

Attn.: Paul A. Fairbairn

900 Sante Fe Avenue

Albany, CA 94706

Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P219 TO8

501 North Main

Received: 02/24/2003 16:29

Site: Fort Bragg, CA

Batch QC Report										
Prep(s): 5030B							Test(s): 8260B			
Laboratory Control Spike			Water			QC Batch # 2003/02/27-01.27				
LCS	2003/02/27-01.27-003		Extracted: 02/27/2003			Analyzed: 02/27/2003 11:30				
LCSD	2003/02/27-01.27-004		Extracted: 02/27/2003			Analyzed: 02/27/2003 11:58				
Compound	Conc.	ug/L	Exp.Conc.	Recovery		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Methyl tert-butyl ether (MTBE)	26.4	25.3	25.0	105.6	101.2	4.3	65-165	20		
Benzene	22.7	22.3	25.0	90.8	89.2	1.8	69-129	20		
Toluene	23.2	22.2	25.0	92.8	88.8	4.4	70-130	20		
Surrogates(s)										
1,2-Dichloroethane-d4	526	533	500	105.2	106.6		76-114			
Toluene-d8	490	483	500	98.0	96.6		88-110			

Gas/BTEX Fuel Oxygenates by 8260B

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Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P219 TO8

501 North Main

Received: 02/24/2003 16:29

Site: Fort Bragg, CA

Legend and Notes

Result Flag

g

Hydrocarbon reported in the gasoline range does not match our gasoline standard.

Total Extractable Petroleum Hydrocarbons (TEPH)

Streamborn Consulting Services

Attn.: Paul A. Fairbairn

900 Sante Fe Avenue

Albany, CA 94706

Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P219 TO8

501 North Main

Received: 02/24/2003 16:29

Site: Fort Bragg, CA

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
501-MW2 (23 Feb 03)	02/23/2003 16:10	Water	1
501-MW4 (23 Feb 03)	02/23/2003 15:10	Water	2

Total Extractable Petroleum Hydrocarbons (TEPH)

Streamborn Consulting Services

Attn.: Paul A. Fairbairn

900 Sante Fe Avenue

Albany, CA 94706

Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P219 TO8

501 North Main

Received: 02/24/2003 16:29

Site: Fort Bragg, CA

Prep(s): 3510/8015M

Test(s): 8015M

Sample ID: **501-MW2 (23 Feb 03)**

Lab ID: 2003-02-0461 - 1

Sampled: 02/23/2003 16:10

Extracted: 2/25/2003 12:18

Matrix: Water

QC Batch#: 2003/02/25-04.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	170	50	ug/L	1.00	02/27/2003 18:59	ndp
Motor Oil	ND	500	ug/L	1.00	02/27/2003 18:59	
Kerosene	ND	50	ug/L	1.00	02/27/2003 18:59	
Stoddard solvent	ND	50	ug/L	1.00	02/27/2003 18:59	
Hydraulic Oil	ND	500	ug/L	1.00	02/27/2003 18:59	
Surrogates(s)						
o-Terphenyl	98.3	60-130	%	1.00	02/27/2003 18:59	

Total Extractable Petroleum Hydrocarbons (TEPH)

Streamborn Consulting Services

Attn.: Paul A. Fairbairn

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Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P219 TO8

501 North Main

Received: 02/24/2003 16:29

Site: Fort Bragg, CA

Prep(s): 3510/8015M

Test(s): 8015M

Sample ID: **501-MW4 (23 Feb 03)**

Lab ID: 2003-02-0461 - 2

Sampled: 02/23/2003 15:10

Extracted: 2/25/2003 12:18

Matrix: Water

QC Batch#: 2003/02/25-04.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	50	ug/L	1.00	02/27/2003 16:31	
Motor Oil	ND	500	ug/L	1.00	02/27/2003 16:31	
Kerosene	ND	50	ug/L	1.00	02/27/2003 16:31	
Stoddard solvent	ND	50	ug/L	1.00	02/27/2003 16:31	
Hydraulic Oil	ND	500	ug/L	1.00	02/27/2003 16:31	
Surrogates(s)						
o-Terphenyl	96.2	60-130	%	1.00	02/27/2003 16:31	

Total Extractable Petroleum Hydrocarbons (TEPH)

Streamborn Consulting Services

Attn.: Paul A. Fairbairn

900 Sante Fe Avenue

Albany, CA 94706

Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P219 TO8

501 North Main

Received: 02/24/2003 16:29

Site: Fort Bragg, CA

Batch QC Report

Prep(s): 3510/8015M

Method Blank

MB: 2003/02/25-04.10-003

Test(s): 8015M

Water

QC Batch # 2003/02/25-04.10

Date Extracted: 02/25/2003 12:18

Compound	Conc.	RL	Unit	Analyzed	Flag
Diesel	ND	50	ug/L	02/25/2003 18:10	
Motor Oil	ND	500	ug/L	02/25/2003 18:10	
Kerosene	ND	50	ug/L	02/25/2003 18:10	
Stoddard solvent	ND	50	ug/L	02/25/2003 18:10	
Hydraulic Oil	ND	500	ug/L	02/25/2003 18:10	
Surrogates(s)					
o-Terphenyl	97.0	60-130	%	02/25/2003 18:10	

Severn Trent Laboratories, Inc.

STL San Francisco * 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 * www.stl-inc.com * CA DHS ELAP# 2496

03/03/2003 16:13

Total Extractable Petroleum Hydrocarbons (TEPH)

Streamborn Consulting Services

Attn.: Paul A. Fairbairn

900 Sante Fe Avenue

Albany, CA 94706

Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P219 TO8

501 North Main

Received: 02/24/2003 16:29

Site: Fort Bragg, CA

Batch QC Report

Prep(s): 3510/8015M

Test(s): 8015M

Laboratory Control Spike

Water

QC Batch # 2003/02/25-04.10

LCS 2003/02/25-04.10-001

Extracted: 02/25/2003

Analyzed: 02/25/2003 16:56

LCSD 2003/02/25-04.10-002

Extracted: 02/25/2003

Analyzed: 02/25/2003 17:33

Compound	Conc. ug/L		Exp.Conc.	Recovery		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		Rec.	RPD	LCS	LCSD
Diesel	1260	1260	1250	100.8	100.8	0.0	60-130	25		
Surrogates(s)										
o-Terphenyl	20.5	23.9	20.0	102.3	119.6		60-130	0		

Total Extractable Petroleum Hydrocarbons (TEPH)

Streamborn Consulting Services

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Phone: (510) 528-4234 Fax: (510) 528-2613

Project: P219 TO8

501 North Main

Received: 02/24/2003 16:29

Site: Fort Bragg, CA

Legend and Notes**Result Flag**

ndp

Hydrocarbon reported does not match the pattern of our Diesel standard